ABSTRACT

An asymmetric alkyl compound producing method of the present invention includes a synthesizing step of carrying out an asymmetric synthesis reaction by mixing (i) a reaction solution containing a glycine imine ester, an alkyl halide, and an asymmetric catalyst having a catalytic action which causes the asymmetric synthesis reaction to proceed with (ii) an alkali-treated solid support obtained by treating with an alkaline substance a solid support made of an inorganic compound. By placing this mixture at room temperature, the asymmetric alkylation occurs between the glycine imine ester and the alkyl halide which are catalyzed by the asymmetric catalyst in an alkali-treated solid support contained in the mixture, and the asymmetric alkylation is completed in about 1 hour. Thus, a highly optically pure asymmetric alkyl compound can be obtained in high yield. Therefore, it is possible to provide the asymmetric alkyl compound producing method which does not require the agitation of the solvent, completes the asymmetric alkylation efficiently and stably in a short time, and synthesizes a highly optically pure asymmetric alkyl compound in high yield.